Information Services Support for Distributed Learning

Military Librarians Workshop
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Overview/History

- Who we are:
  - TRADOC Library and Information Network (TRALINET) vs TRADOC Library Office
- Organizational Relationships:
  - DCSBOS
  - ADCST-West
    - CALL
    - UAN
      - Distributed Virtual University
      - Distributed Virtual Laboratory
      - Distributed Virtual Research Library
- DCSIM
- OSD KM Program
  - Knowledge Management
  - Knowledge Manage[illegible] Bl[illegible]pri[illegible]

Vision/Direction

- Move libraries from traditional to distributed virtual research libraries
- Ensure capture of Army unique information via digitization and other knowledge management technologies
- Access online 24/7/365 from anywhere via the web
- Information system contains installation unique courses, or SME collaboration
- Portals to other internal and external information

DOD/DA Significance

- Supports Strategy
- Upholds doctrine
- Realizes vision
- Modernizes infrastructure
- Maximizes resources
- R & D
  - Enterprise object and data modeling techniques with full repository capabilities
  - Expert Systems
  - Artificial Intelligence

TRADOC Perspective

- Standardizes information exchange
- Moves libraries networks to knowledge networks
- Captures “unique” information generated by command (current and historical)
- Disseminates information anywhere anytime, 24/7
- Unifies command library/knowledge into one enterprise integrated system
- Highlights practical uses and collaborative efforts
- Creates a knowledgebase of human expertise for problem solving

Management Issues

- Resources
  - Dollars (RDT&E vs OMA)
  - Manpower
  - Time
  - IT equipment
- Collaboration
  - Top down
  - Attitudes
  - Team atmosphere/equal players
  - One POC for overall effort
- Training
  - Obtaining
  - Funding
  - Learning Curves
  - Re-training
- Information Assurance
- Customers

Results: Will it be worth the effort?

What is a Distributed Virtual Research Library (DVRL)?

Traditional		Virtual
4 walls	→	No walls
Limited info access	→	Unlimited access
Isolated	→	Global visible, open, collaborative
Centralized/concentrated	→	Distributed
Things (books/CD's)	→	Intangibles (info, data, knowledge)
Doors open M - F 8-5	→	Available 24/7/365

Why the DVRL?

- Incorporate e-learning
- Support University After Next (UAN)
- Leverage technology for Force XXI (FXXI), Army After Next (AAN), and Strike Force
- Provide state-of-the-art knowledge services
  - Intelligent access to databases
  - Digital reference services
- Enhance force projection in any response
  - Information at fingertips to make decisions
- Serve as a doctrinal prototype
- Serve as a technological prototype
  - Data mining, warehousing
  - Intangible asset management (KM)
  - XML, scripting language
  - Information Assurance
- Establishes foundation for knowledge superiority and dominance

The Engines that Drive the DVRL Train

- ***Digital Media Archive (DMA)***
  - A system designed to store, organize, and access library non-book items
  - Access via online catalog from anywhere on the network (intranet) or externally (Internet) with a web browser with the appropriate plug-ins (if applicable)
- ***Library Automation System***
  - A system designed to manage the circulation, cataloging, serial control, patron accounts, and generate various management reports
- ***Learning Management System (LMS)***
  - A system designed to assess, track and manage the e-learning process
  - Features include: asynchronous/synchronous collaboration, test management, student enrollment

DVRL Site Selections

- How selected?
  - Managerial capability
  - Type of library
  - Staffing
  - Resident Expertise
  - Attitude/Atmosphere
- Who?
  - Fort Eustis Transportation School Library
  - Fort Gordon Signal Center & School Consolidated Library
  - Fort Jackson Soldier Support Institute Library

Baseline Assessments

- Leadership
  - Vision shareholder
  - Willingness to set direction
  - Ability to influence
- Management
  - Capability to accomplish
  - Open-minded
  - Time to accomplish
  - Past success with difficult challenges
- Operations
  - Conducive
  - Easily adaptive
  - IT baseline assessment
- Resources
  - Staffing
  - CALL supplementals
  - Standards (level of service)

How we proceeded?

- Tier 1 (Initiation)
  - Purchase of hardware
  - Purchase of software - digital media archive system
  - Installation of hardware/software
  - Initial staff training
  - Administrator training
  - DMA strategic planning session

How we proceeded? (continued)

- Tier 2 (Curriculum Support)
  - Identification of course support materials (e.g. instructor notes, study guides, lab sheet, program of instruction, syllabus, etc.) to support traditional classroom instruction
  - Determine formatting
  - Research feasibility of XML
  - Research metadata tagging (Dublin Core)
  - Identify who will format, scan, and maintain course support materials
  - Establish PAT teams of various SME's to ensure tasks are completed
  - Determine timelines

How we will proceed (continued)

- Tier 3 (online course(s))
  - Identification of initial course(s) offered via e-learning
  - Conduct soldier needs assessment of current course(s) for web-based training (WBT) or task analysis for new WBT course(s)
  - Identify learning management software (LMS) platform (I.e Mindspan, Learning Space,TrainingServer, TopClass, etc)
  - Must access skills, analyze needs, manage course, schedule events, and develop courses
  - Begin developing e-learning course(s) via authorware (I.e. Assymmetric Toolbox)

How we will proceed (continued)

- Determine role and develop skills of instructors in e-learning delivery
- Determine proper use of instructional technologies (I.e. streaming technologies, asynchronous, synchronous delivery systems
- Information/Training Portal development
  - A single point of access to all structured and unstructured enterprise data
  - Single login, XML-based infrastructure, application and metadata integration, and unified searching

How we will proceed (continued)

- Tier 4 (Collaborative Environment)
  - Identification of the SME's to include via discussion boards, chatrooms, etc.
  - Development of not only content management tools (I.e. search and retrieval, databases, repositories), but collaboration tools (I.e. profiling, alerting, interactivity, brainstorming)
  - Development communities of interest, expertise, or practice
    - Sharing of new ideas
    - Refine existing knowledge
    - Expand to other Army experts and external environment experts

How we proceeded? (continued)

- Mount software and conduct feasibility testing through schoolhouse SME's and students
- Collaborative learning activities
  - Group writing and evaluation projects
  - Mentoring
  - Debates and problem solving

Lessons Learned

- Infrastructure
  - Wide area networking (WAN) technology
    - Asynchronous Transfer Mode (ATM)
    - NIPRNET
    - Backbone
    - Cabling plant
- Desktop application
    - Hardware/Software
- Content delivery
- Training migration
- Cost
- Maintenance
- Availability of services
  - Database services (I.e. Proquest, etc.) via specific IP addresses

In closing

- Library staff can do this stuff!
- Librarians possess the expertise to create and manage knowledge-based enterprises
- It does takes time, staff, commitment and $$
- Can you afford not to do it?
- If the library doesn’t “play,” many others will answer the need